

WIRELESS SEATBELT BUCKLE SWITCH HARVESTING ENERGY AND METHOD THEREFOR

Abstract

A device (20) for an automotive vehicle (10) is provided to indicate the buckled and unbuckled status of a seatbelt (24). The device (20) has a self-powered wireless switch assembly (22) that is coupled to the seatbelt (24). It provides power to power a wireless transmitter (44) to transmit a wireless signal (45) corresponding to the buckled and unbuckled state of the seatbelt (24). The self-powered wireless switch assembly (22) harvests energy from the mechanical action of the seatbelt (24). The device (20) transmits a wireless signal (45) indicating the seatbelt (24) status. The receiver (18) located in the automotive vehicle (10) receives the wireless signal (45). The wireless signal (45) is processed by a safety information system (12) and then visually and audibly displayed by an indicator (16) to alert the driver of the seatbelt (24) status.